

517,411

Rec'd PCT/PTO 03 DEC 2004

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
18 December 2003 (18.12.2003)

PCT

(10) International Publication Number  
**WO 03/105538 A1**

(51) International Patent Classification<sup>7</sup>: **H05B 33/14**,  
H01L 51/20, C09K 11/06, C07D 403/10, 405/14

(74) Common Representative: **SIBA SPECIALTY CHEMICALS HOLDING INC.**; Klybeckstrasse 141, CH-4057 Basel (CH).

(21) International Application Number: PCT/EP03/05698

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 30 May 2003 (30.05.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/386,306 6 June 2002 (06.06.2002) US

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **SIBA SPELCTALTY CHEMICALS HOLDING INC.** [CH/CH]; Klybeckstrasse 141, CH-4057 Basel (CH).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **ROGERS, Jonathan, S.** [US/CH]; Grosspeterstrasse 45, CH-4052 Basel (CH). **DEBELLIS, Anthony, David** [US/US]; 9 Gooler Court, Stony Point, NY 10980 (US). **PASTOR, Stephen, Daniel** [US/US]; 27 Crows Nest Lane Unit 4F, Danbury, CT 06810 (US). **DAN, Norihisa** [JP/JP]; 79-14 Hashimoto kurigadani, Yawata-shi, Kyoto 614-8327 (JP). **MAIKE, François** [FR/FR]; 30A, rue de la libération, F-68510 Geispitzen (FR).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*



WO 03/105538 A1

(54) Title: ELECTROLUMINESCENT DEVICE

(57) Abstract: Disclosed are electroluminescent devices that comprise organic layers that contain certain 2H-benzotriazole compounds. The 2H-benzotriazole compounds of blue-emitting, durable, organo-electrouminescent layers. The electroluminescent devices may be employed for full color display panels in for example mobile phones, televisions and personal computer screens.